

ber to April on our sea-coast and by the mouths of rivers. They fish both in salt and fresh water, are very shy and wary birds.”—J. E. S.

3. *CHAMÆPELIA TROCHILA*, Bp. Consp. ii. p. 77.

Prince Bonaparte has given this name to the Martinican form of *C. passerina*, with which we may suppose the St.-Lucian form will agree; but I am very doubtful about its real distinctness, although it is upheld by Messrs. Newton (*Ibis*, 1859, p. 253).

“The ‘Ortolan,’ or Ground-dove, is found everywhere, but prefers sparsely bushed tracts of ground, the roads and cultivated lands, especially when these have been recently burned off. They keep together in pairs, sometimes many pairs together, feeding during the morning and afternoon, and generally retiring during the heat of the day to cool shady places. Though small they are very delicate eating.”—J. E. S.

4. *PORPHYRIO MARTINICUS* (Linn.): *Scl. et Salv. P. Z. S.* 1868, p. 459.

“The ‘*Poule d’Eau*,’ Coot or Waterfowl, frequents grassy spots near fresh water, is a great plantain- and banana-eater, and consequently in bad odour with the labourers who grow these fruits. The young, with the help of their undeveloped wings, climb up the mother’s legs, and nestle under the feathers there. They are active and vigorous as soon as hatched. Very noisy birds in wet weather; very shy and wary, and not very plentiful.”—J. E. S.

5. *TRINGOIDES MACULARIUS*.

“The ‘Tivi-Tivi’ is found solitary or in pairs almost all the year round on the sea-beach or by the river-sides.”—J. E. S.

6. *PHAËTHON ÆTHEREUS*, Linn.

“This Tropic-bird breeds on some of the small islets of St. Lucia. It is known also as ‘The Boatswain’ and ‘The Wobbler.’”—J. E. S.

4. On the Sea-bear of New Zealand (*Arctocephalus cinereus*) and the North-Australian Sea-bear (*Gypsophoca tropicalis*). By Dr. J. E. GRAY, F.R.S. &c.

[Received April 23, 1872.]

The southern Sea-bear was observed in Cloudy Bay, in 1773, in Cook’s second voyage, where an account of it is given.

Several beautiful drawings of the animal were made for Sir Joseph Banks, which are now with the rest of his drawings in the Botanical Department in the British Museum. Dr. J. R. Forster wrote a description of the animal, which was published by the Berlin Academy

in an octavo volume under the title of 'Forster's Descriptio Animalium' (p. 64).

Forster sent copies of the figures and notes of the animal to Buffon, which were engraved and the notes published in the sixth volume of the 'Supplement' of his 'Natural History' (p. 336, tab. xlvii.) under the name *Ours marin*, under which name Buffon combined the Arctic and Antarctic Sea-bears, or *Ours marin*.

Lesson, in his compilation on Seals, called the species *Otaria forsteri* (Diction. Class. d'Hist. Nat. vol. xiii. p. 421); and Fischer notices it in his 'Synopsis' as *Phoca forsteri* (p. 250), and, curiously enough, adds, "Annon potius generi *Enhydris* adnumeranda?"

Not being able to see any specimen or skull of this species so that I could identify it with my species in the British Museum, and Forster's description of the skull and teeth only showing that it was a species of *Arctocephalus*, I recorded it under the name *Arctocephalus forsteri* in the 'Annals and Magazine of Natural History,' for 1868 (i. p. 219), and in the 'Supplement to the Catalogue of Seals and Whales,' published in 1871.

Dr. Hector, after my repeated inquiry for the New-Zealand Sea-bear, was so fortunate as to kill several specimens of this animal, and has most kindly sent to the British Museum an adult skull of those which he had procured. He observes in a letter which I have just received:—"I have since received another skull from the Auckland Islands [the most southern island of the New-Zealand group], of a very young individual; the characters are all the same, except that the palate is not so much contracted posteriorly; but the form and position of the posterior aperture is maintained; in my paper as published in our 'Transactions' [of the New Zealand Institute] I have suggested that the head (skull) is *A. cinereus*." He has since sent me two plates, one giving three views of the adult skull, and three of what he calls the very young skull. One is an *Arctocephalus*, and the other a *Gypsophoca*.

I have compared the adult skull sent by Dr. Hector with the figure of the skull of the adult male in Quoy and Gaimard's 'Voyage de l'Astrolabe,' 1824, tab. 13. figs. 1 and 2; and I believe that they represent the same species, though there is a slight difference in the position of the grinders as compared with the skull, which has the front edge of the fourth grinder even with the back part of the large aperture in front of the zygomatic arch, whilst in the figure the front edge of the fifth grinder appears to be in this situation; but this may only be a want of accuracy on the part of the artist. I have little doubt that Quoy's animal from Port Western and the New-Zealand one are the same; but it is a matter of doubt if the animal figured by Quoy is the *Otaria cinerea* of Desmarest's 'Mammalia,' pp. 251, 348, from Péron and Lesueur's 'Voyage,' tab. ii. p. 75, who received it from Kangaroo Island; for I am not aware that Péron brought home any specimen. It is certainly not the same as *Arctocephalus* (*Gypsophoca*) *cinerea* in the British-Museum catalogue, described from Mr. Macgillivray's specimens.

The New-Zealand skull is very like the skull of the Southern Fur-

Seal (*Arctocephalus nigrescens*) from the Falkland Islands and the south-west coast of Patagonia. It differs in the position and form of the grinders, and in the form of the palate, and its contracted sides and truncated hinder part; it differs considerably from it in the outline and prominence of the temporal bullæ and the os petrosa. The upper surfaces are very much alike, and the orbits are very large and of the same size. The lower jaws are very similar; but the callosity of the Falkland-Island specimen is rather longer, and the crown of the teeth is longer and rather more slender—the crown of the New-Zealand specimen being as long as broad, that of the Falkland-Island specimen being one third longer than broad.

The upper cutting-teeth in the New-Zealand species appear to form a much narrower series; in the nearly adult specimen, with the bones of the skull not quite knit, from the Falkland Islands, the series of upper cutting-teeth is rather wider; in the skull from the Falkland Islands very like the adult skull from New Zealand, it is half as wide again. Quoy's figure of the cutting-teeth agrees with the skull sent by Dr. Hector.

Mr. Allen suggests that all the Sea-bears of the Southern Ocean are of one species; but he does not appear to have seen specimens of skulls of any of them. If he had, at any rate he would have allowed that there were two. I think that the skulls in the British Museum show that there are three, which may be thus divided:—

\* *Hinder opening of palate narrow, half-ovate in front. Upper cutting-teeth moderate.*

1. *Arctocephalus antarcticus*, Gray, Suppl. Cat. Seals and Whales, p. 17.

\*\* *Hinder opening of palate truncated in front.*

2. *Arctocephalus nigrescens*, Gray, l. c. p. 20. Upper cutting-teeth large, in a wide series.
3. *Arctocephalus cinereus*, Gray, l. c. p. 24. Upper cutting-teeth compressed, forming a narrower series.

These skulls sometimes have the back of the palate more or less imperfect, and with a triangular notch or slit in the front edge.

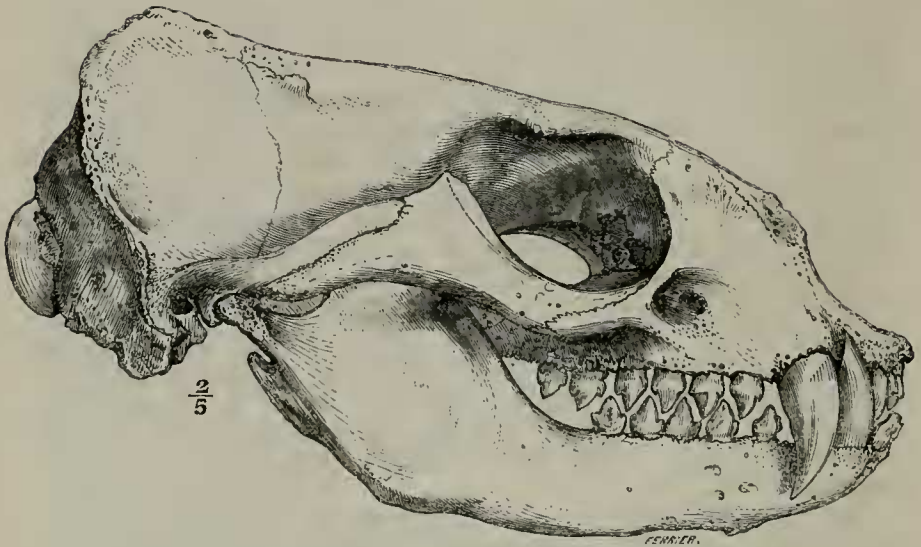
It is curious, after Steller's and Forster's description of the Sea-bear, that they should be regarded as Seals; it is evident that Fischer observed their un-Seal-like characters when he inquired if they should not be arranged with *Enhydria*; yet Quoy and Gaimard figure the two species of this genus which they observed with elongate bodies and in the attitude of the common Seals (*Phocidæ*). And Gould did the same with the Australian species; I believe he had never seen the specimen alive.

#### ARCTOCEPHALUS CINEREUS.

*Sea-bear*, Cook's Second Voyage.

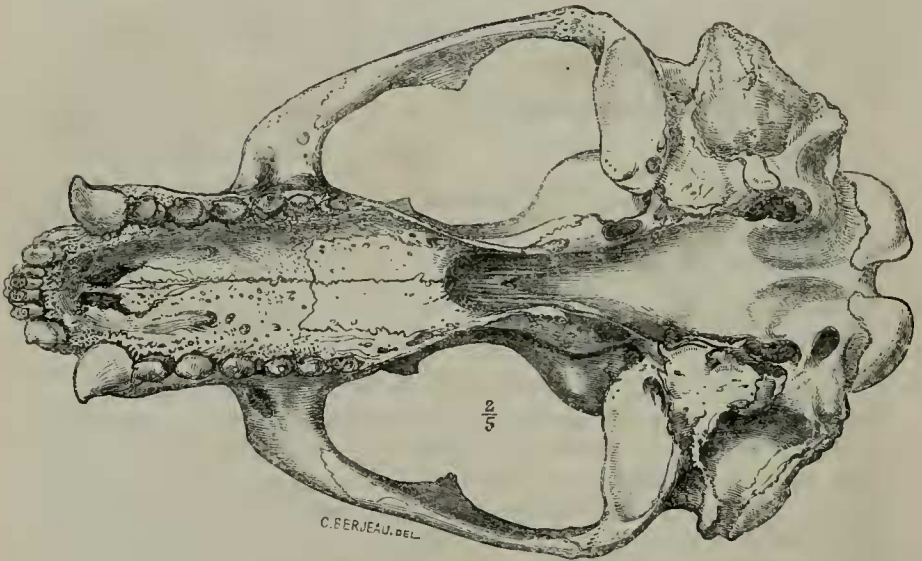
*Phoca ursina*, John R. Forster, Descriptio Animalium, p. 64.

Fig. 1.



*Arctoecephalus nigrescens.* ~~Falkland Islands.~~  
*cinereus.* *New Zealand.*

Fig. 2.



*Arctoecephalus nigrescens.* ~~Falkland Islands.~~  
*cinereus.* *New Zealand.*

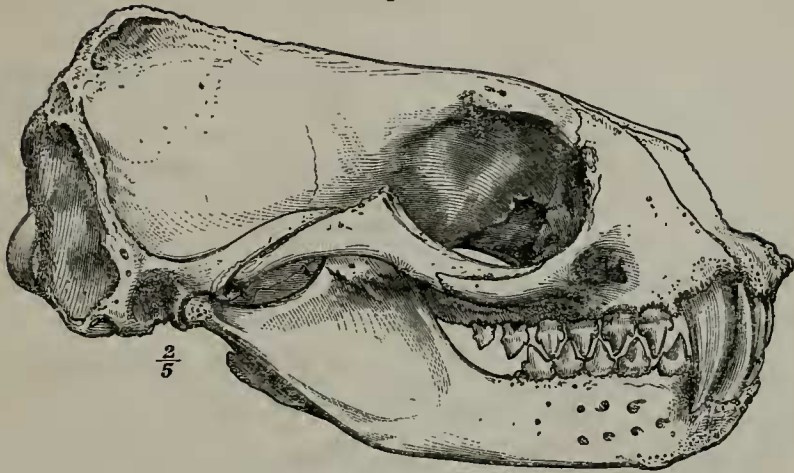
*Ours marin*, Buffon, Hist. Nat. Suppl. vi. p. 336, t. 47.

*Otaria cinerea*, Péron, Voy. Terr. Austr. ii. pp. 54?, 77; Desmarest, Mamm. p. 251; Quoy et Gaim. Voy. de l'Astrolabe, Mamm. p. 89, t. 12, 13, & 15; Peters, Monatsb. May 17, 1866, p. 272.

*Phoca cinerea*, Fischer, Synopsis, p. 233.

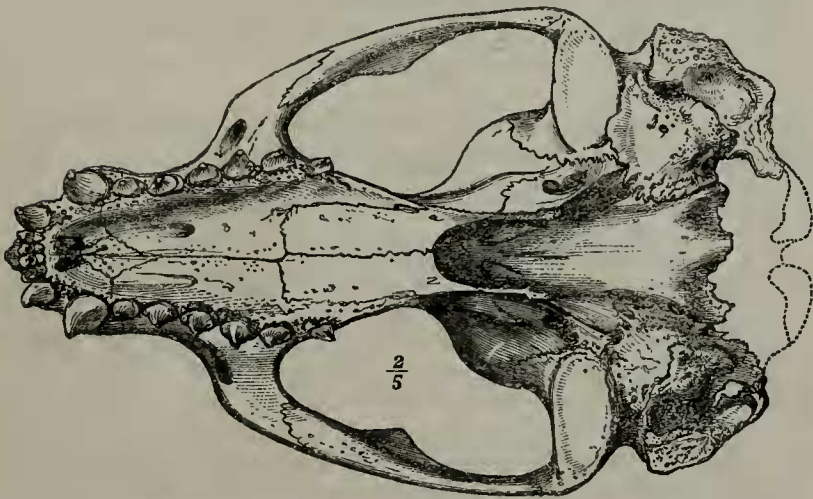


Fig. 3.



*Arctocephalus cinereus*. New Zealand.  
*nigrescens*. Falkland Id.

Fig. 4.



*Arctocephalus cinereus*. New Zealand.  
*nigrescens*. Falkland Id.

*Otarie* (*Ours du M. Gaimard*), Cuvier, *Oss. Foss.* v. p. 222.

*Otaria lamarii*, J. Müller, *Monatsb.* p. 334.

*Otaria ursina*, Nilsson, *Monogr.* p. 332.

*Otaria forsteri*, Lesson, in *Dict. Class.* xiii. p. 421.

*Phoca forsteri*, Fischer, *Synopsis*, p. 333.

*Arctocephalus forsteri*, Gray, *Suppl. Cat. Seals and Whales*, p. 25.

*Otaria* (*Arctocephalus*) *cinereus*, Peters, *Monatsb.* 1866, pp. 272, 671.

*Arctocephalus cinereus*, Allen, *Bull. Mus. Comp. Anat.* ii. p. 45? (not Gray, *Suppl.*); Hector, *New-Zeal. Institute*, iv. t. xii. fig. 1, p. 196 (skull).

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*Hab.* Port Western, N. H. (*Quoy*); Dusky Bay, New Zealand (*Forster*).

The skull which Dr. Hector sent from New Zealand is a true *Arctocephalus*, belonging to the section *Euotaria* of my Supplement to the Catalogue of Seals, and is quite distinct from the specimens of the skulls which the Museum received from Mr. John Macgillivray as coming from North Australia, which form my subgenus *Gypsophoca*—indeed, so distinct, that I must consider *Gypsophoca* a distinct genus, more allied to *Phocarcetos* than to *Arctocephalus*.

The study of the skull would reduce the tribe *Arctocephalina*, as characterized in the 'Supplement to the Catalogue of Seals and Whales' (1871, p. 11), into two divisions, thus:—

\* *Grinders, two (fifth and sixth) hinder upper quite behind the hinder edge of the zygomatic arch.*

1. PHOCARCTOS. Skull elongate, front part much longer than twice the length of the hinder part of the skull to the condyle. Palate very deep, much wider in the middle. Under-fur sparse.
2. GYPSOPHOCA. Skull broad behind, tapering in front; the front part one third longer from the condyle than from the condyle to the occiput. Palate narrow. Under-fur abundant.

\*\* *Grinders, the hinder one (or sixth) quite behind the hinder edge of the zygomatic arch.*

3. ARCTOCEPHALUS. Under-fur abundant.

The first, second, third, and fourth upper grinders have an undivided root, whereas the fifth in the upper jaw has the root more or less divided, which in the fifth and sixth is well divided; but the distinctness of the division of the roots of the grinders appears to depend on the growth of the animal. The position of the grinders in the small skulls may be observed before the bones are united together at the sutures. The milk-teeth of the Seals and the Sea-bears are changed very soon after birth, and these animals have a complete series of the permanent teeth when only a few weeks old. The teeth become larger as the jaw grows in size, but they retain their original position with regard to the parts of the bones of the face and the zygomatic arch.

Their position affords an excellent character for the distinction of the species and division of them into groups. Allen, in his plates of the northern Sea-bear (*Callorhinus ursinus*), figures the skull and teeth of two adult animals and the skull of one only thirty-five days old—the latter showing the teeth exactly placed as in the figures of the two adult specimens. These skulls also exhibit the varieties that exist in the form of the hinder opening to the nostrils of the same species, the chief difference arising in the more or less imperfect manner in which the hinder margin of the palate is developed.

1. The Sea-lions (*Otaria*) have the palate produced to a line even

with the condyle. They have only six grinders in the upper jaw, and the last is placed even with the hinder edge of the zygoma.

2. The Sea-bears have the front angle of the hinder nasal opening in the middle of the zygomatic arch.

\* *Callorhinus*, *Phocarcos*, and *Gypsophoca* have six grinders in the upper jaw; and the two hinder grinders are on a level with, or behind, the hinder edge of the zygomatic arch.

\*\* *Arctocephalus* has six grinders in the upper jaw, and only the hinder one is behind the hinder edge of the front part of the zygomatic arch.

\*\*\* *Eumetopias* has five grinders in the upper jaw; the fifth is far away from the rest and behind the hinder edge of the front part of the zygomatic arch, with a pit between the fourth and fifth as if a tooth were absent; but it is so in all the specimens I have seen, and Mr. Allen figures it with this peculiarity.

\*\*\*\* *Zalophina* and *Neophoca* have only five grinders in the upper jaw, the fifth grinder being opposite the middle of the front end of the broad zygomatic arch.

#### GYPSOPHOCA.

Skull broad behind, at the part behind the ear-hole; the palate narrow, concave; the internal nostrils rounded in front, and diverging on the sides behind. Grinders  $\frac{6}{5} \cdot \frac{6}{5}$ , the two hinder upper with two roots, quite behind the hinder edge of the zygomatic arch; the fifth lower fitting between the fourth and fifth upper grinders; the crown of the grinders triangular, elongate, recurved; the upper with a slight denticle in front of the base, the two hinder smooth; the lower ones with a notch on each side.

*Arctocephalus*, \*\*\* *Gypsophoca*, Gray, Suppl. Cat. Seals and Whales, p. 24.

This genus is most like *Arctophoca* in the position of the teeth; but the palate is much narrower, the face short, and the hinder part of the skull much larger and more ventricose. It differs from *Arctocephalus* in the position of the upper grinders, the narrowness of the palate, &c.

#### GYPSOPHOCA TROPICALIS.

Black, grey beneath; under-fur abundant, reddish brown.

*Arctocephalus nigrescens*, b & c, Gerrard, Cat. Bones B.M. p. 147.

*Arctocephalus cinereus*, Gray, Cat. Seals and Whales, p. 56; Ann. & Mag. Nat. Hist. 1866, xviii. p. 236 (not synonyma); Hector, Trans. New Zealand Instit. iv. t. xii. f. 2, p. 196.

*Otaria stelleri*, Schlegel, Fauna Japonica, tab. xxii. figs. 5 & 6 (skull)?

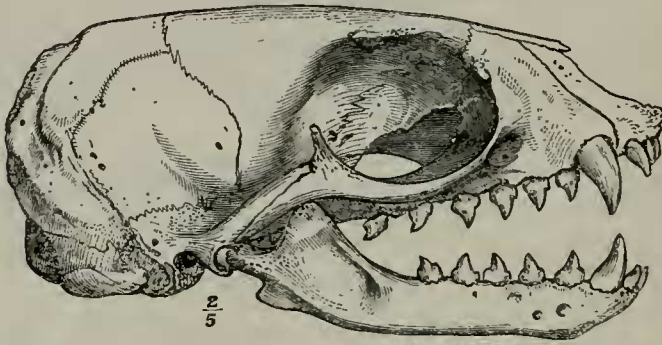
*Hab.* North coast of Australia (Mr. John Macgillivray).

There are adult and young specimens of this species, a perfect skull of a young individual, and the nose, palate, and upper jaw of this species in the British Museum.

The small skull figured by Temminck seems more to resemble this species than *Arctocephalus cinereus*.

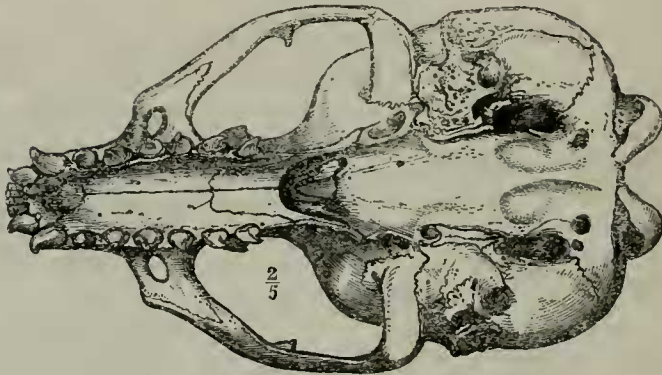
lower jaw  
in colln

Fig. 5.



*Gypsophoca tropicalis*. Auckland Island.

Fig. 6.



*Gypsophoca tropicalis*. Auckland Island.

Dr. Peters, in the 'Monatsbericht,' 1866, p. 276, t. 2, describes and figures a skull from Juan Fernandez, on the west coast of America, which he received from Dr. Philippi, and founded on it his genus *Arctophoca*, calling it *A. philippii*.

This skull of *A. philippii*, from the large size and peculiar form of the brain-cavity, and the peculiarities of its underside (especially its large foramen), agrees with the skull from North Australia in the British Museum which I have called *Gypsophoca tropicalis*; but it is described and figured as only having five grinders on each side of the upper jaw, and Dr. Peters founds his characters on this peculiarity. I believe that the skull will be found to have lost the small upper hinder grinders, for which there is space at the hinder end of the



alveolar edge. The skull has the fifth grinder behind the back edge of the front part of the zygomatic arch. The only Seals that I know that have the teeth in this position have six grinders in the upper jaw; and they, like this genus, all have triangular-shaped grinders and abundant under-fur.

Dr. Peters in his second paper on Eared Seals, 'Monatsbericht,' 1866, p. 671, enlarges his subgenus *Arctophoca*, and also refers to it *Otaria falklandica* of Shaw and Burmeister, which he says is my *Otaria nigrescens*, from the unpublished figure of the skull of it which I gave him, and which is a species of my restricted genus *Arctocephalus*, which has only the sixth upper tooth behind the front of the zygomatic arch.

Dr. Philippi sent a description and figure of a skull that he had received from the island of Masafuera, on the west coast of South America, which is published by Dr. Peters in the 'Monatsbericht' for 1871, p. 588, t. 1, 2, and which he calls *Arctophoca argentata*. This skull wants the hinder part of the brain-case, has six grinders in its upper jaw, and is in every respect very like the skull of *Gypsophoca tropicalis* and the *Arctophoca philippii* from Juan Fernandez. It chiefly differs from the figure of the latter skull, as Dr. Philippi shows in his plate, in the hinder portion of it being narrower, and the condyles much shorter or rather narrower.

These three skulls appear to me to belong to one group; but whether they are three distinct species (two from the west coast of South America, and one from North Australia) I will not attempt to determine, as I have only seen the skins and skull of the one from the latter region; but they are all Fur-Seals and may be distinct.

Dr. Philippi proposes to enlarge the genus *Arctophoca*, and refers to it four species, which he thus characterizes:—

"1. *Arctophoca falklandica*, Shaw, Gray, Burmeister. Grau, mit blas rother Unterwolle. Atlantischer Ocean.

"2. *A. nigrescens*, Gray. Schwärzlich, mit dunkel rostrother Unterwolle. Atlantischer Ocean.

"3. *A. argentata*, Philippi. Grau, mit blas rother Unterwolle. Stiller Ocean.

"4. *A. philippii*, Peters. Schwärzlich, mit dunkel rostrother Unterwolle. Stiller Ocean."

If *A. falklandica* is my *Arctocephalus falklandica*, I have never seen its skull and do not know the position of its teeth.

*A. nigrescens* has the sixth upper grinder behind the back edge of the zygomatic arch, and belongs to my restricted genus *Arctocephalus*, in common with *A. antarctica* of the Cape, which is F. Cuvier's type of the genus, and *A. cinereus* of Quoy and Gaimard, of New Holland and New Zealand. *A. argentata* and *A. philippii* have the fifth and sixth upper grinders behind the back edge of the zygomatic arch, and, I believe, are both referable to the genus *Gypsophoca*.

The figures of the skulls of *Otaria philippii* and of *Otaria argentata* have the front edge of the hinder aperture of the nostrils with a triangular slit in the middle; the young skull of *Gypsophoca tropicalis* has it truncated and entire; but this part, as I have

already observed, is liable to be imperfect in this respect in many species.

Temminck, in the 'Fauna Japonica,' makes some observations on the Eared Seals, and shows the inaccuracies of his predecessors. He describes one species, *Otaria stelleri*, and observes that the plate of the entire animal was drawn from a living animal in Japan.

It is very unlike the living animal of the family figured by Forster and that now alive in the Zoological Society's Gardens. The fins look much more as if they were from a stuffed specimen made by a man who never saw a living Sea-bear. He figures the skeleton and three skulls as different ages of the same species, calling one (t. 22. f. 1, 2) from a very old, the second (t. 22. f. 3, 4) from an adult, and the third (t. 22. f. 5, 6) from a middle-aged specimen—I suppose, all from Japan; but I do not see it so stated. The first two have only five upper grinders and very differently shaped heads; the third has six upper grinders and is a *Gypsophoca*. No species has been described from the North Pacific; and it may be a new species yet undiscovered, as all the other species come from the other side of the equator.

I should, judging from the figures, regard them as belonging to two, if not three, distinct species, and the whole theory of their being different ages of the same species as a mistake arising from not studying the growth of the teeth in these animals.

The skeleton of *O. stelleri* (t. 23) is taken from the same specimen as the skull which he says is of a very aged individual (t. 21. f. 1, 2), and is most probably the adult of *Zalophus gillespii*. Skull, figs. 3 and 4, may be the young of the same species; but, unfortunately, the underside is not figured of any of these skulls, so as to show the position of the teeth in connexion with the zygoma; and figures 5 and 6 are evidently *Gypsophoca*, as above stated.

##### 5. Note on *Hyla punctata* and *Hyla rhodoporus*.

By Dr. A. GÜNTHER.

[Received April 24, 1872.]

*Hyla punctata* was named by Schneider in the year 1799 (Hist. Amph. i. p. 170) and described thus:—

“*Colorem griseum albidum distinguunt puncta nivea, sine ordine sparsa, inter oculos et per totum dorsum; tænia etiam nivea dorsum utrinque cingit, ab oculis ducta supra aures usque ad femora.*”

This characteristic white band, similar to the lateral glandular fold of a *Hylorana*, is also mentioned by all following authors who had really examined examples of this Tree-frog: it is distinctly described and figured by Spix (1825, Spec. Nov. p. 37, tab. 9. fig. 4, *Hyla*